Remarks

The Examiner's comments and objections and the cited references have been carefully considered by the Applicant.

New claims 18-20 are hereby submitted. Claims 16 and 17 are unprejudicially canceled. New claims 18 and 19 are supported by the original specification page 5, lines 1-13. New claim 20 is supported by the original specification page 4, lines 8-11.

Before addressing the Examiner's objections it may be useful to outline that the claimed invention is based on the *exclusive* use as a filler of *glass particle* with a size distribution *between 0.2 and 1.5 mm* thereby obtaining an accurately dimensioned, waterproofing filler that allows to obtain articles that do not absorb liquids and do not favor the germ and bacterial proliferation on the surface thereof.. Moreover, the Applicant has found that such effects are not obtained when fillers other than glass, as quartz, cristobalite, aluminum trihydrate etc, .and even glass mixed with such other fillers, with other sizes, are used.

Claim Rejection – 35 USC § 102

Claims 1-5, 9-11, 15-17 are rejected under 35 U.S.C. 102(b) as anticipated by Harke et al.

However, "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).
It shall be also noted that in order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an

anticipation under the statute" (MPEP 2100_2131).

In the present case, Harke et al. do not disclose at least the following element set forth in claim 1:

- said filler material is constituted by **glass** particles the preponderant fraction thereof (i.e. more than **50% thereof**),
- has a size distribution from **0.2 to 1.5 mm** (i.e. from 200 to 1500 micron)

What Harke et al. disclose is

- an inorganic filler; examples of the inorganig filler, which can be used individually or in combination, being glass, glass beads, quartz, cristobalite, tridymite or other SiO2 modifications as well as aluminum trihydroxide (col. 4, lines 24-28), finely divided (col. 4, line 12), at least 10% by weight of the filler
- has a particle size > 60 microns (col. 4, lines 14-16)

Thus, the claims are directed to narrow ranges while the Harke et al. teaches broad ranges both for the fraction of particles of the filler and their size.
Moreover, no specific examples falling within the claimed ranges, and even less examples using glass within the claimed ranges, are disclosed by Harke et al.
In addition, unexpected results are obtained within the claimed narrow range.

In fact, the exclusive use as a filler of glass particles the preponderant fraction thereof , i.e. more than 50% thereof, having a size distribution from 0.2 to 1.5 mm, was found by the Applicant to allow to obtain sanitary articles and sinks, obtainable with a simple and cost competitive process, and which *even after a long period of use* have a surface that is perfectly impermeable, *do not stain* as it does not absorb liquids and *do not allow the proliferation of germs and bacteria.* In fact, the inventors have found that such properties of the articles made of the claimed material remain unchanged during the use for long periods of time. Further advantageous properties of the claimed material are disclosed in the original description, for example at page 6, lines 8-22.

In addition, it cannot be said that the material with the claimed ranged can be "AT ONCE ENVISAGED" from the generic disclosure of Harke et al. In fact, the limits of the claimed ranges are never mentioned by Harke et al. and the skilled person is not able to write each range included in the broad ranges mentioned by Harke et al., so as to write also the claimed ranges [Akzo N.V. v. International Trade Comm'n, 808 F.2d 1471, 1 USPQ2d 1241 (Fed. Cir. 1986) (Claims to a process for making aramid fibers using a 98% solution of sulfuric acid were not anticipated by a reference which disclosed using sulfuric acid solution but which did not disclose using a 98% concentrated sulfuric acid solution.).

It is accordingly considered that Harke et al. does not disclose with *sufficient specificity* the subject matter of claim 1 to constitute an anticipation under the statute.

It is accordingly considered that the subject matter of claim 1 is novel over Harke et al.

In addition, Harke et al. do not disclose glass particles *coated with* organofunctional silanes.
It is accordingly submitted that the subject matter of claim 18 is novel over Harke et al.

Furthermore, Harke et al. do not disclose a syrup of polymethyl metacrilate in *methyl methacrylate*. In fact, Harke et al. only disclose *acrylic* acid derivatives.
It is accordingly submitted that the subject matter of claim 20 is novel over Harke et al.

It is accordingly submitted that the subject matter of the claims is not anticipated hy Harke et al.

Also in view of the unexpected results as mentioned above, the claimed subject matter presents also an inventive step over Harke et al..

Claim Rejection – 35 USC § 103

Claims 1-12, 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schock in view of Harke et al.

Before addressing the Examiner's objections, it may be useful to outline the following: The problem addressed by the present invention is that of overcoming problems encountered for known thermosetting composite materials comprising a resin matrix and quartz particles and the solution to this problem offered by the invention is a thermosetting composite material comprising a polymeric matrix and glass particles with a specified particle size distribution (original application, page 1, line 10 to page 3, line 11).

Schock at least does not teach the filler to be **glass** particles. Schock et al. only discloses the mineral filler to be quartz.
Harke et al teaches an inorganic filler, examples of which, that can be used individually or in combination, being glass, glass beads, quartz, cristobaliter, tridymite or other SiO2 modifications as well as aluminum trihydroxide (col. 4, lines 24-28).

The examiner relies on equivalence as a rationale supporting the obviousness rejection. However, to rely on equivalence as a rationale supporting an obviousness rejection, *the equivalence must be recognized in the prior art,* and cannot be based on the applicant's disclosure or the mere fact that the components at issue are functional or mechanical equivalents.

In the present case, the equivalence between glass and quartz was nor recognized in the art.
Particularly, Harke et al. do not disclose glass and quartz to be equivalent and particularly functionally equivalent.
Harke et al. simply indicate glass and glass beads as members of a list of examples for

their filler, i.e. as members of a Markush group. The mere fact that components are claimed as members of a Markush group cannot however be relied upon to establish the equivalency of these components. In re Ruff, 256 F.2d 590, 118 USPQ 340 (CCPA 1958) .

In addition, Harke et al. never teach or suggest that some better result may be obtained when glass is used instead of quartz or of any other filler mentioned therein
There is no suggestion and there is no motivation found in the cited art to replace the quartz of Shock with glass.

On the contrary, the Applicant has found that the use of one or more of quartz, cristobalite, tridymite or other SiO2 modifications as well as aluminum trihydroxide as a filler do not allow to obtain the unexpected advantageous results, as shown above, reached when glass particles are exclusively used as the filler, as claimed.

It is accordingly submitted that the subject matter of claim 1 would not have been obvious over Schock in view of Harke et al.

Furthermore, Harke et al., as well as Schock, neither teach nor suggest *glass particles coated with organofunctional silanes.*
It is accordingly submitted that the subject matter of claim 18 would not have been obvious over Schock in view of Harke et al.

Moreover, Harke et al, as well as Schock, neither theach nor suggest a syrup of polymethyl metacrilate in *methyl methacrylate wherein the polymethyl mehtacrylate is in a percetage from more then 25% to 30% by weight* . There is no motivation to make the syrup with more then 25% to 30%.by weight of polymethyl metacrylate.
It is accordingly considered that the subject matter of claim 20 would not have been obvious over Schock in view of Harke et al.

In view of the foregoing, favorable action on the merits, including entry and approval of all amendments, reconsideration and withdrawal of each rejection and allowance of all claims is respectfully solicited.

Respectfully submitted,

Daniel O'Byrne (Reg. No. 36,625)
Agent for the Applicant

Date: September 22, 2006
Address: Via Meravigli 16, 20123 MILAN-ITALY
Telephone: (from USA) (011)(39)(02)8590-7777
Telefax: (from USA)(011)(39)(02)863-860